THE RELATIONSHIP BETWEEN CONTINGENCY FACTORS AND ACCOUNTING INFORMATION SYSTEM, AND ITS SUBSEQUENT IMPACT ON INFORMATION TECHNOLOGY BENEFITS: A SURVEY ON JORDANIAN LISTED COMPANIES

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By

MAHMOUD MOHMAD AHMAD AL-EQAB

Thesis Submitted to the College of Business in Fulfillment of the Requirement for the Degree of Doctor of Philosophy Universiti Utara Malaysia

DEDICATION

I dedicate this effort to the soul of my father Mohmad, who is my wise teacher in this life, my kindhearted mother Mohsenah, my eldest brother Marwan, my beloved wife Elham Alta'ani, my dear brothers Yousef, Motafa, Ala, Sakor, and my dear sisters Nawal, Suad, Na'elah, and Amani.

أهداء ألى :

روح والدي الغالي رحمه الله واسكنه فسيح جناته

و أمي الحبيبه: أنعم بها من حنونه والحديث عن فضلها يطول

وأخي الاكبر مروان: من ضحى براحته ووقته من أجل أسعد العيش لمن حوله

و زوجتي الحبيبه الهام: شريكة حياتي ومن تحملت الصعاب من أجلي

و أخواني ألاعزاء: يوسف ومصطفى وعلاء وصخر

وأخواتي الغاليات: نوال و سعاد و نائله و أماني

اليكم جميعا اهدي هذا الجهد المتواضع

ADMISSION

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Mahmoud Mohmad Ahmad Al-Eqab

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ABSTRACT

The relationships between contingency factors and information technology (IT) or between contingency factors and accounting information systems (AIS) have been discussed in the literature, both in accounting and information systems disciplines. However, very little is known about the relationship between IT sophistication and AIS design, and the impact of AIS design on IT benefits. Most prior studies also treated IT as a unidimensional variable and focuses on the technological sophistication only. Researchers also measured IT differently. To fill this gap, this study first examines the relationships between three dominant contingency factors found in the literature (IT sophistication, environmental conditions, and business strategy) and the sophistication of AIS design. Second, it examines the impact of AIS design on IT benefits. Importantly, this study focuses on four dimensions of IT sophistication, i.e. technological, informational, functional, and managerial to measure the impact of IT on AIS design. This study also focuses on two dimensions of business strategy, i.e. cost leadership strategy and innovation differentiation strategy. To achieve the objectives of this study, data were collected from 182 companies listed in Jordanian Stock Exchange, which represents about 83% response rate. Initial tests show that the assumptions of reliability, multicollinearity, normality, linearity, and homoscedasticity were met. Multiple regression analysis was then conducted to examine the relationship between contingency factors and AIS design. The results reveal significant and positive relationships between four dimensions of

IT sophistication and AIS design, and between two business strategies and AIS design. While most organizations focus on the technical aspect in information systems project, findings from this study suggest managerial, informational, and functional IT sophistication are more important than the technological aspect in influencing AIS design. Furthermore, cost leadership strategy was found to be more important than innovation differentiation strategy in influencing AIS design. Overall, cost leadership strategy is the most important factor that influence the sophistication of AIS design, followed by, in descending order of importance, managerial IT sophistication, informational IT sophistication, functional IT sophistication, innovative differentiation strategy, and technological IT sophistication. Furthermore, no significant relationship was found between environmental conditions and sophistication of AIS design. Finally, results from linear regression indicate a significant and positive relationship between AIS design and IT benefits. Findings of this study imply that organizations need to have a sophisticated AIS design in order to achieve greater IT benefits. On the other hand, the sophistication of AIS design can be achieved by investing not only in the technological IT sophistication but more importantly the managerial, informational, functional sophistication. Furthermore, business strategies especially cost leadership strategy adopted by organizations would also determined the sophistication of AIS design. In summary, this study has deepened current understanding of AIS design and its influence factors, and has provided useful insights into the sophistication of IT development in Jordan. More

importantly, it opens up possibilities for further studies of AIS in Jordan and other Middle East countries, and on a global basis.

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LIST OF ABBREVIATION

IT	=	Information Technology
AIS	=	Accounting Information System
IS	=	Information System
MIS	=	Management Information System
MAS	=	Management Accounting System
FAS	=	Financial Accounting System

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

This chapter introduces the chapter agenda of this study. It outlines the background of the research problem, research questions, research objectives, the context of the study, the significance of the study, and the organization of the remaining chapters.

1.2 BACKGROUND OF RESEARCH PROBLEM

Accounting information system (AIS) is an important component of modern information system (IS) (Mitchell, Reid, & Smith, 2000). Developments in the areas of accounting, information technology (IT) and IS over the last three decades have widened the scope and roles of AIS. For example, the introduction of new accounting model such as Resources-Events-Agents (REA) and the emergence of new technology such as relational and object-oriented database have transformed the way business people view AIS (Ismail & King, 2005). The REA accounting model which is based on economic changes rather than debits and credits as in traditional accounting model (McCarthy, 1982) has made it possible for modern AIS to capture not only historical and financial-related data but also non-financial and future-oriented data (Mauldin & Ruchala, 1999). Furthermore, the evolution of client-server

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